

Claims

What is claimed is:

1. A method, in a multi-dimensional electronic data table comprising a plurality of data, for creating one or plurality of recursive scalable template instances; a recursive scalable
 5 template instance comprising a variable number of contiguous recursive element instances ordered and aligned along a first data table dimension and structured according to a recursive scalable template; a recursive element instance being defined as comprising one or a plurality of scalable template instances; a scalable template instance comprising a
 10 variable number of elements structured according to a scalable template; an element being defined as a range of data; a range of data comprising one or a plurality of data; a recursive scalable template comprising a recursive element comprising one or a plurality of scalable templates; said method comprising for each recursive scalable template instance to create, the steps of:
 - Selecting a recursive scalable template;
 - 15 • Defining a location for creating a recursive scalable template instance;
 - Creating at the defined location one or a plurality of contiguous recursive element instances ordered and aligned along a first data table dimension; each recursive element instance having a variable size along said first data table dimension and a same size along a second data table dimension;
 - 20 • Structuring each recursive element instance according to the recursive element defined for the recursive scalable template;
 - Aligning each scalable template instance of each recursive element instance along said first data table dimension;
 - Aligning within each recursive element instance, each scalable template instance along
 25 said second data table dimension.
2. The method according to the preceding claim, said method comprising the preliminary steps of:
 - Creating or updating one or a plurality of recursive elements;
 - the step of creating or updating one or a plurality of recursive elements, comprising for
 30 each recursive element the further step of:
 - Specifying one or a plurality of scalable templates;
 - Creating or updating one or a plurality of recursive scalable templates, said step comprising for each recursive scalable template, the further step of:
 - Specifying a recursive element.
- 35 3. The method according to any one of the preceding claims wherein the step of creating a variable number of contiguous and ordered recursive element instances aligned along the first data table dimension, comprises for each recursive element instance the step of:
 - Instantiating the one or plurality of scalable templates specified in the recursive element specified in the recursive scalable template.
- 40 4. The method according to any one of the preceding claims wherein said recursive scalable template instance further comprises a header part and/or a footer part; the header part of the recursive scalable template comprising a predefined number of recursive meta-elements; the footer part of the scalable template comprising a predefined number of recursive meta-elements; a recursive meta-element comprising one or a plurality of scalable
 45 templates; said method comprising the further steps of:
 - Creating or updating one or a plurality of recursive meta-elements, said step comprising for each recursive meta-elements the further steps of:
 - Specifying one or a plurality of scalable templates.
5. The method according to any one of the preceding claims wherein the step of creating or
 50 updating a recursive scalable template, comprises the further step of:
 - Defining a recursive scalable template header part and/or a recursive scalable template footer part,
 - the step of defining a recursive scalable template header part comprising the step of:
 - Specifying with a given order, a predefined number of recursive meta-elements;

- the step of defining a recursive scalable template footer part comprising the step of:
 - Specifying with a given order, a predefined number of recursive meta-elements.
- 6. The method according to any one of the preceding claims wherein the step of creating a recursive scalable template instance, said recursive scalable template instance comprising a variable number of recursive element instances structured according to a body part of a recursive scalable template, comprises the preliminary step of:
 - Creating a predefined number of contiguous and ordered recursive meta-element instances aligned along the first data table dimension, and structured according to the one or plurality of recursive meta-elements specified in the header part of the recursive scalable template.
- 7. The method according to any one of the preceding claims wherein the step of creating a recursive scalable template instance, said recursive scalable template instance comprising a variable number of recursive element instances structured according to a body part of a recursive scalable template, comprises the subsequent step of:
 - Creating a predefined number of contiguous and ordered recursive meta-element instances aligned along the first data table dimension, and structured according to the one or plurality of recursive meta-elements specified in the footer part of the recursive scalable template.
- 8. The method according to the preceding claim comprising, for each recursive element instance and recursive meta-element instance, the step of :
 - Adjusting the size of the recursive element instance and recursive meta-element instance along said first data table dimension according to the size of the largest scalable template instance of said recursive element instance and recursive meta-element instance.
- 9. The method according to any one of the preceding claims wherein the step of creating or updating one or a plurality of recursive elements and optionally one or a plurality of recursive meta-elements, comprises for each recursive element or recursive meta-element the further step of:
 - Assigning to the recursive element or recursive meta-element :
 - An identifier, preferably a name;
 - Optionally, a last change date corresponding to the date of the last update; and
 - Optionally, a type for determining whether it is a recursive element or a recursive meta-element.
- 10. The method according to any one of the preceding claims comprising the further step of:
 - Assigning to each recursive element and recursive meta-element :
 - Means for determining whether at least one recursive scalable template refers to the recursive element or recursive meta-element or not;
 - Means for determining whether at least one recursive scalable template instance refers to the recursive element or recursive meta-element or not.
- 11. The method according to any one of the preceding claims wherein the step of creating or updating one or a plurality of recursive scalable templates, comprises for each recursive scalable template, the further step of:
 - Assigning to the recursive scalable template:
 - An identifier, preferably a name;
 - Optionally, a last change date corresponding to the date of the last update of the recursive scalable template; and
 - Optionally, an indicator specifying if at least one recursive scalable template instance refers to said recursive scalable template.
- 12. The method according to any one of the preceding claims comprising the further steps of:
 - Displaying through a dedicated user interface, identifier, optionally type and optionally date of last update of any existing recursive element, or recursive meta-element, or recursive scalable template;

- Detecting a selection by a user of a recursive element, a recursive meta-element, or a recursive scalable template for edition:
 - If a recursive element has been selected, editing the selected recursive element;
 - If a recursive meta-element has been selected, editing the selected recursive meta-element;
 - If a recursive scalable template has been selected, editing the selected recursive scalable template.
- 13. The method according to any one of the preceding claims comprising the further steps of:
 - Displaying through a dedicated user interface, identifier, optionally type and optionally date of last update of any existing recursive element or recursive meta-element or recursive scalable template;
 - Detecting a selection by a user of a recursive element, a recursive meta-element, or a recursive scalable template for deletion:
 - If a recursive element has been selected and if no recursive scalable template refers to said selected recursive element, deleting the selected recursive element;
 - If a recursive meta-element has been selected and if no recursive scalable template refers to said selected recursive meta-element, deleting the selected recursive meta-element;
 - If a recursive scalable template has been selected and if no recursive scalable template instance refers to said selected recursive scalable template, deleting the selected recursive scalable template.
- 14. The method according to any one of the preceding claims wherein the step of creating or updating one or a plurality of recursive meta-elements comprises the further step of :
 - Specifying for said recursive meta-elements, a number of scalable templates equal to the number of scalable templates comprised in the recursive element specified for the recursive scalable template.
- 15. The method according to any one of the preceding claims comprising the further step of
 - Creating in a same recursive scalable template instance, contiguous recursive element instances and one or plurality of recursive meta-element instances, said recursive element instances and one or plurality of recursive meta-element instances having a same size along said second dimension.
- 16. The method according to any one of the preceding claims wherein the step of creating in a same recursive scalable template instance, recursive element instances and one or plurality of recursive meta-element instances, comprises the further step of :
 - Aligning each scalable template instance of each recursive element instance and each recursive meta-element instance along said first data table dimension.
- 17. The method according to any one of the preceding claims wherein the step of creating a recursive scalable template instance, comprises the preliminary step of:
 - Checking that said recursive scalable template instance does not corrupt any existing recursive scalable template instance or existing scalable template instance on the data table.
- 18. The method according to any one of the preceding claims wherein said multidimensional electronic data table is an electronic spreadsheet comprising a plurality of cells identified by a cell address along each dimension.
- 19. The method according to the preceding claim wherein a scalable template instance comprises a variable number of contiguous elements of same size ordered and aligned along a given spreadsheet dimension and structured according to a scalable template; an element being defined as a range of cells; said scalable template comprising an element format and/or an element profile; an element format defining for each cell within each element, one or a plurality of format attributes; an element profile defining a cell content for each cell within each element; said method comprising the further steps of:
 - Creating or updating one or a plurality of element formats and/or one or a plurality of elements profiles,

the step of creating or updating one or a plurality of element formats, comprising for each element format the further steps of:

- Specifying a format illustrative range of cells;
- Defining for each cell belonging to said format illustrative range of cells, one or a plurality of format attributes;

the step of creating or updating one or a plurality of element profiles, comprising for each element profile the further steps of:

- Specifying a profile illustrative range of cells;
- Defining for each cell belonging to said profile illustrative range of cells a cell content;

- Creating or updating one or a plurality of scalable templates, said step comprising for each scalable template, the further step of:

- Specifying an element format and/or an element profile;

- Creating one or a plurality of scalable template instances, said step comprising for each scalable template instance the further steps of:

- Selecting a scalable template;
- Defining a location for creating the scalable template instance;
- Creating at the defined location one or a plurality of contiguous elements ordered and aligned along a given spreadsheet dimension;

- Structuring each element according to the element format and/or element profile defined in the scalable template.

20. The method according to the preceding claim wherein the step of defining for each cell belonging to said format illustrative range of cells, one or a plurality of format attributes, comprises the further step of:

- Defining for each cell belonging to said format illustrative range of cells, one or a plurality of :

- Background attributes; and/or
- Alignment attributes; and/or
- Font attributes; and/or
- Line attributes; and/or
- Protection attributes.

21. The method according to any one of claims 19 to 20 wherein the step of defining for each cell belonging to said profile illustrative range of cells, a cell content, comprises the further step of:

- Defining for each cell belonging to said profile illustrative range of cells:
 - A formula, said formula referring to one or a plurality of cells; or
 - A default value.

22. The method according to any one of claims 19 to 21 wherein the step of defining for each cell belonging to said profile illustrative range of cells, a cell content, comprises the further step of:

- Defining for each cell belonging to said profile illustrative range of cells, a cell destination, said cell destination specifying whether the cell is an input cell for receiving an entry or an output cell for producing a result.

23. A computer system comprising means adapted for carrying out the steps of the method according to any one of the preceding claims.

24. A computer program comprising instructions for carrying out the steps of the method according to any one of claims 1 to 22, when said computer program is executed on the system according to the preceding claim.